

## IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 6-13 and AMEND claims 2 and 3 in accordance with the following:

1. (Previously Presented) A metal photoetching product, comprising:  
at least one large cavity of minor axis  $W_1S$ , major axis  $W_1L$  and depth  $D1$  in a surface of the product, wherein

one or more cavities are included inside at least one of the at least one large cavity, and a smallest hole among the cavities has minor axis of  $W_2S$ , major axis  $W_2L$ , and depth  $D2$ ; and

$D1 + D2 = \text{plate thickness } D$ ,  $0.02 \text{ mm} \leq D \leq 2 \text{ mm}$ ,  $0.4 \times D < W_1S < D$ , and  $0.2 \times D < W_2S < 0.8 \times D$ ; and

at least one combination of the large cavity and the smallest hole formed in the large cavity has an etching factor of 2.6 or more, where the etching factor is  $EF = ED/SE$  wherein  $EF$  represents the etching factor,  $ED$  represents an etched depth of a cavity to be evaluated,  $SE$  represents a primary side etching which is a half of a difference between a dimension of an opening of the cavity formed by primary etching and a dimension of an opening of a photoresist pattern used for the primary etching, and when there are two primary side etchings as a result of photoetching conducted from both upper and lower surfaces of a metal substrate,  $SE$  represents the larger one.

2. (Currently Amended) A metal photoetching product, comprising:  
at least one combination of a large cavity of minor axis  $W_1S$ , major axis  $W_1L$  and depth  $D1$ , and a small cavity of minor axis  $W_2S$ , major axis  $W_2L$  and depth  $D2$  in a surface of the metal photoetching product with a plate thickness  $D$  under the surface, wherein

$0.02 \text{ mm} \leq D \leq 2 \text{ mm}$ ,  $0.5 \times W_1S < D1 < D$ ,  $0.5 \times W_2S < D2 < D$ ,  $1.7 \times W_2S < W_1S < 5 \times W_2S$ , and  $0.5 \times D2 < D1 < 1.5 \times D2$ , and

at least one of the large cavity and the small cavity has an etching factor of 2.6 or more,

where the etching factor is  $EF=ED/SE$  wherein EF represents the etching factor, ED represents an etched depth of a cavity to be evaluated, SE represents a primary side etching which is a half of a difference between a dimension of an opening of the cavity formed by primary etching and a dimension of an opening of a photoresist pattern used for the primary etching, and when there are two primary side etchings as a result of photoetching conducted from both upper and lower surfaces of a metal substrate, SE represents the larger one.

3. (Currently Amended) A metal photoetching product, comprising:

at least one combination of a large cavity of minor axis  $W_1S$ , major axis  $W_1L$  and depth  $D1$ , and a small cavity of minor axis  $W_2S$ , major axis  $W_2L$  and depth  $D2$  in a surface of the metal photoetching product with a plate thickness D under the surface, wherein

$0.02 \text{ mm} \leq D \leq 2 \text{ mm}$ ,  $0.5 \times W_1S < D1 \leq D$ ,  $0.5 \times W_2S < D2 \leq D$ ,  $W_2S < W_1S < 2.0 \times W_2S$ , and  $0.2 \times D1 < W_2S < 0.8 \times D1$ , and

at least one of the large cavity and the small cavity has an etching factor of 2.6 or more, where the etching factor is  $EF=ED/SE$  wherein EF represents the etching factor, ED represents an etched depth of a cavity to be evaluated, SE represents a primary side etching which is a half of a difference between a dimension of an opening of the cavity formed by primary etching and a dimension of an opening of a photoresist pattern used for the primary etching, and when there are two primary side etchings as a result of photoetching conducted from both upper and lower surfaces of a metal substrate, SE represents the larger one.

4. (Original) A metal photoetching product comprising

a processed portion having a metal pattern, wherein

the processed portion includes a first side wall formed by primary etching on a surface layer side of a metal layer and at least one second side wall, which extends in a direction of thickness of the film, connects to the first side wall formed by the primary etching, and is formed by etching one or more times using an electrodeposited resist; and

the metal pattern has a form comprising a cavity provided by at least second etching which has a different form than a cavity provided by the primary etching.

5. (Previously Presented) A metal photoetching product comprising

a processed portion having a metal pattern of a complex and three-dimensional shape, wherein

the processed portion includes a first side wall formed by primary etching on a surface

layer side of a metal layer and at least one second side wall, which extends in a direction of thickness of the film to the first side wall formed by the primary etching and is formed by etching one or more times using an electrodeposited resist; and

an etching factor of an opening of the metal pattern is 2.6 or more, where the etching factor is  $EF=ED/SE$  wherein EF represents the etching factor, ED represents an etched depth of a cavity to be evaluated, SE represents a primary side etching which is a half of a difference between a dimension of an opening of the cavity formed by primary etching and a dimension of an opening of a photoresist pattern used for the primary etching, and when there are two primary side etchings as a result of photoetching conducted from both upper and lower surfaces of a metal substrate, SE represents the larger one.

6-13. (Cancelled).

14. (Previously Presented) The metal photoetching product according to claim 1, wherein the large cavity includes at least two cavities.

15. (Previously Presented) The metal photoetching product according to claim 2, wherein the at least one of the large cavity and the small cavity include two or more cavities therein.

16. (Previously Presented) The metal photoetching product according to claim 3, wherein at least one of the large cavity and the small cavity include two or more cavities therein.

17. (Previously Presented) The metal photoetching product according to claim 4, wherein the cavity of the metal photoetching product has an etching factor of 2.6 or more, where the etching factor is  $EF=ED/SE$  wherein EF represents the etching factor, ED represents an etched depth of a cavity to be evaluated, SE represents a primary side etching which is a half of a difference between a dimension of an opening of the cavity formed by primary etching and a dimension of an opening of a photoresist pattern used for the primary etching, and when there are two primary side etchings as a result of photoetching conducted from both upper and lower surfaces of a metal substrate, SE represents the larger one.

18. (Previously Presented) The metal photoetching product according to claim 4, wherein the metal pattern includes three or more continuous side walls formed by three or more

etchings, wherein the side walls successively extend in the direction of thickness thereof, and have different cross sections.

19. (Previously Presented) The metal photoetching product according to claim 5, wherein at least one cavity of the metal pattern includes three or more continuous side walls formed by three or more etchings, wherein the side walls successively extend in the direction of thickness thereof, and have different cross sections.